

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

First named Applicant: David Claramunt	
Application No.: 10/607,873 (CONF 7105)	Group Art Unit: 2854
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Title: Media marking for optical sensing of media advancement	
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Assistant Commissioner for Patents  
Washington, D.C. 20231

**REPLY BRIEF**

This Reply Brief is in reply to the Examiner's Answer of October 6, 2006. It is identical to the Reply Brief filed on June 21, 2006. It is being filed for sake of completeness.

This Reply Brief is organized as follows. First, a brief summary of the claimed invention is provided, with some argument presented as to why all the limitations of the claim language must be considered. Second, a thorough refutation of the Examiner's arguments is provided.

**Brief summary of the claimed invention**

As noted in the previously filed Appeal Brief, claim 1 is primarily the subject of this appeal, and recites the following:

1. A method comprising:  
advancing media; and,  
marking the media as the media advances to allow for one-dimensional optical *sensing of advancement of the media* while accommodating for lateral movement of the media.

The method of claim 1 is directed to two steps or acts. First, media is advanced. Second, the media is marked as the media advances to particularly *allow for one-dimensional optical sensing of advancement of the media* while accommodating for lateral movement of the media. For Christiansen to properly anticipate this claim, all limitations of the claim have to be explicitly or inherently disclosed within Christiansen.

The Examiner has noted in the Answer that the claim “includes substantial functional language,” particularly the phrase “to allow for one-dimensional optical sensing of advancement of the media while accommodating for lateral movement of the media.” (Examiner’s Answer, p. 7, last para.) He has stated that this additional functional language “does not limit the method claim to patentably distinguish the prior art.” The Examiner goes on to say that “[s]tated differently, method claim 1 only requires[:] advancing media, and marking the media” such that “[c]learly these steps are taught by the applied reference.” (Id.)

Applicant submits that the Examiner is wrong in this respect. The recited functional language of claim 1 is indeed that which is at issue in this appeal, is that which limits the method of this claim, and is finally that which patentably distinguishes the claimed invention from Christiansen. Just because Christiansen teaches advancing media and marking the media does not mean that it specifically teaches marking the media “as the media advances to allow for one-dimensional optical sensing of advancement of the media while accommodating for lateral movement of the media,” as to which the language of claim 1 is explicitly limited.

The standard for anticipation under 35 USC 102(b) as articulated by the Federal Circuit is that the prior art reference in question must disclose each element of the claimed invention “arranged as in the claim.” (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)) Here, the “advancing” and “marking” elements of claim 1 are arranged in the claim such that the marking is achieved “as the media advances to allow for one-dimensional optical sensing of advancement of the media while accommodating for later movement of the media.” As such, this additional functional language explicitly limits the arrangement of the claim elements, and therefore Christiansen must teach this additional functional language if it is to anticipate claim 1. It is insufficient for Christiansen to merely disclose advancing media and marking the media to anticipate the claimed invention.

No less an authority than Irah H. Donner, author of the seminal patent treatise “Patent Prosecution: Law Practice, and Procedure” (BNA Books, 4<sup>th</sup> ed., copyright 2005) has expounded upon the Federal Circuit articulation of the anticipation standard recited in the previous

paragraph. Mr. Donner notes the effect of the Lindemann articulation is that “[t]hus, even if the prior art reference includes all the elements that are claimed, if the arrangement of the claimed elements is different from the arrangement of the prior art elements, anticipation will not be present.” (Id. at Vol. I, Ch. 7.V.B.C., p. 960) Although Mr. Donner’s pronouncements are not binding in this venue, his interpretation of Lindemann is no doubt the common sense approach to interpreting the Federal Circuit in Lindemann. Therefore, Christiansen has to teach all the claim limitations of claim 1 as explicitly recited in the claim language in order for it to anticipate the claimed invention.

#### Refutation of the Examiner’s arguments

Notwithstanding the red herring that the Examiner has attempted to introduce in the Answer, with respect to whether all of the claim language of claim 1 has to be found within Christiansen in order for it to anticipate the claimed invention, the sole issue before the Appellate Board is whether Christiansen *inherently* discloses media advancement sensing. The Examiner in his Answer has admitted that Christiansen does not explicitly teach optical sensing of media advancement. However, on pages 6-7, the Examiner has argued that Christiansen inherently senses media advancement in sensing media alignment via optically sensing calibration marks.

The Examiner’s argument can be summarized by relevant excerpt as follows:

[I]t is evident that the scanner inherently detects media advancement because the scanner cannot detect the calibration marks without the media being advanced. In other words, the scanner detects the calibration marks when, and only when, the media is advanced to a position to be detected. Consequently, in the process of detecting the calibration marks, the scanner inherently detects that the media has been advanced.

....

Christiansen teaches the step of printing calibration marks on the media, using print engine 210. As shown in Figure 2, a scanner 290 for detecting the marks is located downstream of the print engine. Consequently, according to Christiansen, the media must be advanced from the print engine to the scanner 290, if the marks are to be detected. Therefore the scanner can only detect the marks if the media is advanced, thereby inherently detecting the advancement of the media.

(Examiner's Answer, previously presented. 6-7)

The crux of the Examiner's argument is that because the optical scanner in a representative embodiment in Christiansen is located downstream from Christiansen's print engine in this representative embodiment, media has to be advanced after printing calibration marks on the media and prior to optical sensing of the marks, such that this optical sensing inherently senses media advancement. That is, the Examiner argues that if you consider just one representative device disclosed in Christiansen, then Christiansen inherently teaches media advancement sensing. Applicant respectfully submits that the Examiner is misconstruing the law of inherency in narrowly considering what Christiansen teaches and discloses in this manner.

The law of inherency is that "occasional results are not inherent." *Mehl/Biophile Int'l Corp. v. Milgram*, 192 F.3d 1362, 52 USPQ2d 1303, 1306 (Fed. Cir. 1999). "It is not sufficient that a person following the *disclosure* [of the prior art reference] *sometimes* obtains the result set forth in the [claim]; it must *invariably* happen." (*Standard Oil Co. v. Montedison, S.p.A.*, 664 F.2d 356,372, 212 USPQ 327, 341 (3d. Cir. 1981) If a reference "will sometimes succeed and sometimes fail . . . it is not anticipation." (*Dewey & Almy Chem. Co. v. Mimex Co.* 124 F.2d 986, 989 (2d Cir. 1942)

Therefore, let us look at what Christiansen actually teaches or discloses. In this sense, there is no better place to look than Christiansen's Abstract. In the Abstract, Christiansen discloses the printing of "registration or calibration marks proximate to the edges of at least one page." Thus, "[t]he number of marks visible at each edge provides a measurable indication of the alignment of the print mechanism with respect to the page." In this respect, all of the examples provided by Applicant in the previously filed Appeal Brief on pages 11-13 are results that follow from practicing Christiansen's teachings and disclosure. On page 12 of the Appeal Brief, Applicant presents two examples where such marks can be printed on an edge of a page and then scanned without media advancement. On page 13 of the Appeal Brief, Applicant presents an example where there is indeed no media advancement at all (in relation to a flat-bed plotter)! In

none of these examples, then, does Christiansen's teachings and disclosure result in sensing media advancement.

These examples thus show that practicing Christiansen's disclosure and teachings only "occasionally" result in media advancement sensing, such that such sensing is not inherent per Mehl/Biophile Int'l as noted above. That is, practicing Christiansen's disclosure and teachings does not "invariably" result in media advancement sensing, such that such sensing is not inherent per Standard Oil Co. as noted above. Following Christiansen's disclosure and teachings will "sometimes fail" to result in media advancement sensing, such that such sensing is not inherent per Dewey & Almy Chem. Co. as noted above.

The error in the Examiner's argument is that he is looking only to a particular, narrow, and simply representative structure by which Christiansen's teachings and disclosure can be practiced. However, this one specific device of FIG. 2 of Christiansen is merely "a simplified representation of a laser mechanism that provides for the alignment of a print engine to the edges of a page." (Christiansen, col. 1, ll. 65-67) It is not the only device or way by which Christiansen's teaching and disclosures can be practiced. Indeed, as stated in the previous paragraphs referencing the examples provided in the previously filed Appeal Brief on pages 11-13 thereof, you can still practice the teachings and disclosure of Christiansen without resulting in the claimed invention's media advancement sensing. The mere fact that "a certain thing *may* result from a given set of circumstances is not sufficient" for inherency to result. (In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (C.C.P.A. 1981))

Indeed, Christiansen itself discloses *other* ways and devices by which its teachings can be practiced, in addition to the specific laser printer device of FIG. 2. "While the *preferred embodiment* of the invention contemplates usage in a laser printer, the invention disclosed herein is equally useful to ink jet printers as well." (Col. 6, ll. 45-47) Christiansen thus ultimately does not limit utilization or practicing of its teachings and disclosure in relation to just the specific laser printer device of FIG. 2. An accurate portrayal of Christiansen's teachings and disclosure is found not by looking only to FIG. 2 thereof, but rather by also considering what Christiansen

discloses in its Abstract, as has been relevantly excerpted above, and what Christiansen discloses at the end of its Detailed Description just prior to the claims. The latter in relevant part states that “by laying down recognizable calibration marks at the top, bottom and left and right sides of a print media, the alignment of the printing mechanism with respect to the edges can be readily determined.” (Col. 6, l. 65, through col. 7, l. 4)

As such, when determining whether following or practicing Christiansen’s disclosure and teachings necessarily or *inherently* results in media advancement sensing, one cannot look to just what happens when you practice these teachings and disclosure in relation to the representative device of FIG. 2 of Christiansen. As noted above, Christiansen explicitly says that you do not have to practice its teachings and disclosure in relation to a laser printer, such as that of FIG. 2. Therefore, so long as there are examples that follow or practice Christiansen’s disclosure and teachings that do *not* result in media advancement sensing – as Applicant has presented in the previously filed Appeal Brief on pages 11-13 thereof – Christiansen cannot be said to *inherently* sense media advancement. To hold otherwise is to frustrate and contradict the basic definition of “inherent,” which is stated in the online dictionary [www.dictionary.com](http://www.dictionary.com) as “existing as an essential constituent or characteristic; intrinsic.”

At the end of the day, then, what you have to look at is what Christiansen teaches and discloses, and whether such teaching and disclosure *necessarily* results in media advancement sensing. Christiansen teaches printing registration or calibration marks proximate to the edges of a page to provide a measurable indication of the alignment of the print mechanism with respect to the page, as noted in its Abstract and at the end of its Detailed Description. Such teachings and disclosure are not limited to being practiced in conjunction with the specific and merely representative simplified device of FIG. 2 of Christiansen, as explicitly noted in Christiansen. You thus have to consider whether practicing Christiansen’s teachings and disclosure only “occasionally” result in media advancement sensing (such as which may occur when practicing them in relation to the device of FIG. 2), or whether they “invariably” result in media advancement sensing (regardless of what type of device in conjunction with which they are

practiced, including the ink jet printer explicitly disclosed in Christiansen). That is, you have to consider whether practicing Christiansen's teachings and disclosure will "sometimes fail" to result in media advancement.

In this respect, it is clear that Christiansen's sensing of page alignment does not *inherently* sense media advancement as well. Applicant has provided three examples on pages 11-13 of the previously filed Appeal Brief that practice Christiansen's teachings and disclosure, and yet do not result in media advancement sensing. By comparison, the Examiner has limited himself to practicing Christiansen's teachings and disclosure in relation to just one representative device to reach the conclusion that Christiansen's teachings and disclosure always result in media advancement sensing. However, one limited example of practicing Christiansen's teachings and disclosure that yields media advancement sensing, where Applicant has provided three counter-examples that also follow Christiansen's teachings and disclosure but that do not yield media advancement sensing, and where Christiansen itself says that other devices can be utilized to practice its teachings and disclosure, cannot provide the basis on which to conclude that Christiansen inherently teaches media advancement sensing. Therefore, Christiansen cannot be considered as anticipating the claimed invention.

Respectfully Submitted,



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